

SUPPORTING INFECTIOUS DISEASE RESEARCH

# **Product Information Sheet for NR-17777**

# Acinetobacter baumannii, Strain 3-137 (OIFC137)

# Catalog No. NR-17777

# For research use only. Not for human use.

# **Contributor:**

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## Manufacturer:

**BEI Resources** 

## **Product Description:**

Bacteria Classification: Moraxellaceae, Acinetobacter

Species: Acinetobacter baumannii

Strain: 3-137 (also referred to as strain OIFC137)

Original Source: Acinetobacter baumannii (A. baumannii), strain 3-137 (OIFC137) was isolated in May 2003 from the catheter tip of a human subject at Walter Reed Army Medical Center, Washington, D.C., USA.1

<u>Comments</u>: A. baumannii, strain 3-137 (OIFC137) was deposited as a multi-drug resistant strain and is part of the "Genomic Sequencing of a Diversity of US Military Acinetobacter baumannii-calcoaceticus Complex Isolates" project to sequence the genomes of clinical and environmental isolates of medically relevant Acinetobacter spp.<sup>2</sup> The complete genome sequence of A. baumannii, strain 3-137 (OIFC137) is available (GenBank: AFDK00000000).

A. baumannii is an aerobic, Gram-negative bacillus that exhibits the ability to rapidly develop antibiotic resistance and is a major cause of hospital-acquired infection.<sup>3</sup> The genomes of multidrug resistant strains of A. baumannii contain resistance "islands" that can contain up to 45 resistance genes. Acquisition of these antibiotic resistance genes occurs through genetic exchange of plasmids, transposons and integrons with Pseudomonas, Salmonella and Escherichia species.<sup>4,5</sup>

## Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in Tryptic Soy broth supplemented with 10% glycerol.

<u>Note</u>: If homogeneity is required for your intended use, please purify prior to initiating work.

# Packaging/Storage:

NR-17777 was packaged aseptically, in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

#### **Growth Conditions:**

Media

Tryptic Soy broth or Nutrient broth or Brain Heart Infusion broth

or equivalent

Tryptic Soy agar or Tryptic Soy agar with 5% defibrinated sheep blood or Nutrient agar or equivalent

Incubation:

Temperature: 37°C Atmosphere: Aerobic

Propagation:

- 1. Keep vial frozen until ready for use, then thaw.
- 2. Transfer the entire thawed aliquot into a single tube of broth
- Use several drops of the suspension to inoculate an agar slant and/or plate.
- 4. Incubate the tube, slant and/or plate for 1 day.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Acinetobacter baumannii*, Strain 3-137 (OIFC137), NR-17777."

## Biosafety Level: 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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#### References:

- 1. Nikolich, M. P., Personal Communication.
- Nikolich, M. P. "Acinetobacter baumannii is an Emerging Nosocomial Pathogen and is an Important Emerging Pathogen in Treatment of Wounds in US Military Practice." J. Craig Venter Institute (2009) <a href="http://gsc.jcvi.org/docs/Acinetobacter-WRAIR">http://gsc.jcvi.org/docs/Acinetobacter-WRAIR</a> 20090514.pdf>.
- 3. Howard, A, et al. "Acinetobacter baumannii: An Emerging Opportunistic Pathogen." Virulence 3 (2012): 243-250. PubMed: 22546906.
- Fournier, P. E., et al. "Comparative Genomics of Multidrug Resistance in *Acinetobacter baumannii.*" <u>PLoS Genet.</u> 2 (2006): e7. PubMed: 16415984.
- Imperi, F., et al. "The Genomics of Acinetobacter baumannii: Insights into Genome Plasticity, Antimicrobial Resistance and Pathogenicity." <u>IUBMB Life</u> 63 (2011): 1068-1074. PubMed: 22034231.
- Bouvet, P. J. M. and P. A. D. Grimont. "Taxonomy of the Genus Acinetobacter with the Recognition of Acinetobacter baumannii sp. nov., Acinetobacter haemolyticus sp. nov., Acinetobacter johnsonii sp. nov., and Acinetobacter junii sp. nov. and Emended Descriptions of Acinetobacter calcoaceticus and Acinetobacter Iwoffii." Int. J. Syst. Bacteriol. 36 (1986): 228-240.

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